

A theoretical framework of quality assurances at training program level according to addevie cycle

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Abstract: This paper focus on building a theoretical framework and its criteria of how-to quality assurance (QA) at bachelor training program level according to the Cycle of ADDevIE (“Analysis – Design – Development – Implement – Evaluation) as well as the Model of CIPO (“Context - Input – Activity/Sub-Process – (Output – Outcome)”. Specially, the ADDevIE here is used as a cycle of continuing improvement of the training program QA.

Keywords: Quality assurance, ADDevIE Cycle, Information Feedback, Continuing Improvement, Training Program.

1. Introduction

In fact, training quality is played important role to the success of students as well as in contributing to develop human resources for the socio-economic development of locality and nation.

As well-known, ones of the philosophies of QA at training program is focused on training process, such as CIPO (Context – Input – Process/Action – Output/Outcome) model; and the other one is prevented “mistakes” during realization of the process. In fact, for preventing “mistakes”, it should be focused on a continuing cycle of improvement and almost studies currently focused on the PDCD (Planning – Doing – Checking – Acting) cycle of Deming which is very popularly in the world. However, beside the PDCA cycle, depend on the context or situation, the continuing cycle of improvement can be used by the others, such as an ADDevIE Cycle.

Therefore, this paper aims at building a theoretical framework of QA at bachelor training program level according to an ADDevIE Cycle. In addition, the second section present about controlling, evaluating quality and progressing according to the training process which consist of comprising guaranteed input quality, ensure the quality of teaching and learning activities/sub-process to achieve graduate results. Lastly, it also mentions about the management of post-graduation assessment and the improvement of the QA system.

2. Content

The ADDevIE Cycle

The Cycle of ADDevIE “Analysis – Design – Development – Implement – Evaluation” appeared in

1975 known as the “Lines” or “Waterfall” (Schlegel, 1995) and over the years has been becoming popular, widely uses in many different fields, especially in the development of higher education (Hannum, 2005). In addition, the design and realization of training programs according to the ADDevIE are a systematic approach with its philosophy of learner-based rather than teacher-based in the traditional way.

As can be seen from Figure 1, Activity “E - Evaluation” is shared and carried out through the process of all 4 others activities. Actually, there are two types of evaluation here: (1) Formative Evaluation is carried out between the first 3 activities with the aim of adjusting/improving the teaching/training design and realization (1-3); and Summative Evaluation is carried out after Activity “I - Implementation” (4) to evaluate the overall effectiveness of training results. Overall evaluation data is often used to make decisions.

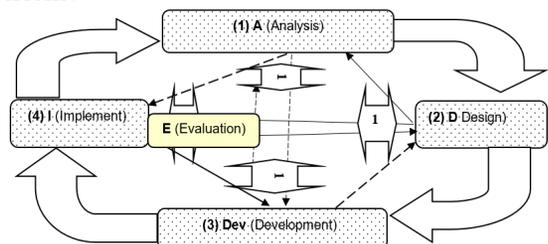


Figure 1: The ADDevIE Cycle

2.2. Application of how to build quality assurance at training program of university according to AD-DevIE Cycle

Based on the above ADDevIE Cycle, it can see from Figure 2 that the process of QA of the training program’s according to its process is

“Input – Teaching and Learning Activities or Sub-Processes – Graduation results (Outputs)” as well as the evaluation according to the “trace” of graduates (Outcomes) associated with information feedback in the Context of strategic orientation to ensure the quality of training program as follows:

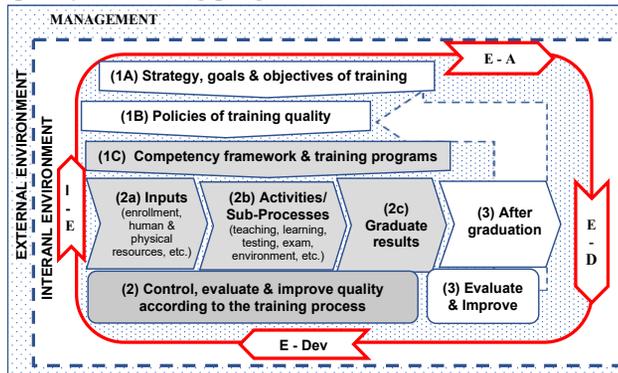


Figure 2: The features and process of training program QA at the bachelor's level

2.3. Managing the setting of strategic orientation to ensure the quality of training program (Step 1)

2.3.1. Managing establishment of strategy for training program development (Step 1A)

The strategy for training program development at bachelor's level is always considered as the starting point of any QA system, therefore, the faculties/university need to implement it. In general, this strategy is often detailed into goals as well as objectives that is crucial for directing development of the quality policies as well as the long-term learning outcomes and training program in the next steps.

2.3.2. Managing development of the training quality policies (Step 1B)

In order to successfully implement the above strategy, a framework of training quality policies should be established and they often relating to: admission and assessment for developing and implementing quality criteria/indicators of admission requirements; teaching and learning needs to focus on values or “student-centered” approach instead of focusing only on teachers; linking teaching with researching and community service; professional development for educators and staff

2.3.3. Managing development of the competencies' framework of graduate and training programs (Step 1C)

Firstly, in fact, the learning outcomes of the competencies or competencies' framework of graduate to be achieved is not only a very important

basis for development, but also a measure to evaluate the quality of the process of designing, implementing, and adjusting the training programs; therefore, competencies' framework is considered the soul of training QA.

Secondly, relating to QA of developing the training program. The competencies' framework of graduate needs to be conveyed in detail into the curricula and subjects/modules so that they are not only concretized into knowledge, skills, and attitudes through subjects/modules and teaching activities, but also guide/stipulate how teachers' teaching should be, and how students' learning needs to be to reach the required competencies' framework above.

Finally, to ensure an appropriate and workable competencies' framework of graduate and the curricula and subjects/modules, training activities, it also requires a mechanism to ensure the active and responsible participation, feedback of all stakeholders, employers, students and alumni participate in (ADDevIE).

Lastly, the competencies' framework and training program implementation manual must be easy to understand, open and accessible to stakeholders at different stages (I-E).

2.4. Controlling, evaluating and improving the quality according to the training process (Sep 2)

2.4.1. Quality assurance of the training input (Sep 2A)

Firstly, admission is related to determining the quality/capacity of new recruits as well as the quality of enrollment process, as the quality of graduates depends largely on the quality of admissions. Thus, using the supply-demand approach shows that QA for admission and admission needs to be based on the competency levels of the competencies' framework of graduate as well as the features of the training program (E-A) to design criteria/requirements which required candidates as well as its regulations (E-D).

Secondly, QA of lecturers and support staffs based on competencies involves planning on quantity, structure, quality/competencies' framework and managing the implementation of the plan.

Then, planning on the number/quantity is determined according to the regulations on the ratio of lecturers/staff and students; the structure is based on the characteristics of the training program (E-D); and related to the quality of lecturers and support staffs, it is necessary to combine the respective job assessment and analysis (EA) to determine or

design a competencies' framework that lecturers and support staffs needed to match job positions in specific contexts.

Finally, relating to QA of required facilities which include: infrastructure (lecture halls, classrooms, project rooms, laboratories, computer rooms...), libraries and resources, equipment and finance, etc..

2.4.2. *Quality Assurance of the quality of teaching and learning activities in the training process (Sep 2B)*

Quality assurance of teaching and learning activities/sub-processes is considered a sub-system in the QA system, including: ensuring the quality of lecturers' teaching and learners' learning. At the same time, QA is also about evaluating/assessing results according to learning progress, graduation exams and providing feedback for improvement in a positive educational environment set up for successful implementation of the training program.

Firstly, QA of lecturer' teaching is focused on teaching approach associated with supporting learners' learning, therefore, it is necessary to organize an assessment and analysis (E-A) of the internal environment to determine the strengths (S), weaknesses and causes (W) of the current situation, and the external environment to identify opportunities (O) and challenges/threats (T) relating to development trends (E-A).

Secondly, quality learning here is understood as the need to create an educational/training environment that can ensure that learners actively participate in the process of building knowledge and concepts.

Thirdly, evaluate/assess results according to learning/training progress from admission results through the entrance exam, examine and evaluate the learning process to reach the competencies' framework of the modules/subjects, and evaluate graduation results to reach the competencies' framework of the training program.

Fourthly, developing a positive training and learning environment should ensure that students are supported to achieve quality learning. Thus, it is required that educators create not only an academic environment but also psychosocial environment to serve the best for learning process as well as activities to guide students how to learn in an interactive learning environment.

Finally, to ensure that the all above QA activities are appropriate and feasible, it requires mechanisms

to ensure that stakeholders participate and respond positively and responsibly (ADDevIE). Furthermore, relevant regulatory documents and implementation guidelines should be made public and accessible to stakeholders, especially lecturers and students in different stages (I-E).

2.4.3. *Quality assurance of graduation results (Sep 2C)*

Quality assurance of graduation results in relation to the rates of graduation and dropout compared to the set targets. Training effectiveness is measured through the average training time from the beginning to graduation. In addition, the QA of graduation results is also related to the level of satisfaction of the stakeholders in the school/faculty/training program with the quality of the training program; and whether it meets the requirements of students regarding the content of the curricula and subjects/modules, teaching methods and examination and assessment methods or not.

2.5. *Management of post-graduation evaluation and improvement of the quality assurance system (Step 3)*

This section deals with external assessment/evaluation and is mainly carried out through the assessment according to the "trace" of graduates for determining their ability to find jobs or further study as well as their lifelong learning. External assessment is usually expressed through the percentage of students who have jobs after graduation, the satisfaction of stakeholders, etc.

3. Conclusion

This paper presented and analyzed the theoretical framework and its criteria of how to develop the QA at bachelor training program level according to the Cycle of ADDevIE which is used as the cycle of continuing improvement of the training program QA.

It can be seen that this paper is an important premise for design and realize, specially, how to identify and apply the criteria of the QA at bachelor training program level in practices.

References

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